

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025578**Date Inspected:** 05-Aug-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** N/A**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

In response to ZPMC Bolting Inspection Notification request #00747 this QA Inspector performed random observations of ZPMC personnel used torque wrench serial number X02-666 to perform final tension verification of bolted connections of OBG segment 13BE at the following location:

Item 2: On August 3 and August 4 this QA Inspector performed random visual inspections as ZPMC performed torque verifications of "Triangle Plate" bolting at segment 13AE longitudinal diaphragm LD3026 stiffener X3458B near PP117. Two bolts rotated when ZPMC applied the torque. ZPMC workers determined the nuts appeared to be jammed onto the bolts and the only way they could be removed was to cut the bolts or nuts. On August 3 ZPMC QC Inspector Mr. Xu Jin Long informed this QA Inspector that dayshift personnel would remove the damaged bolt, a new bolt, nut and washer would be installed and this bolted connection would be ready for torque verifications on August 4 at 2000 hours. On August 4 ZPMC QC Inspector Mr. Xu Jin Long informed this QA Inspector that dayshift personnel had removed the damaged bolts and new bolts, nuts and washers had been installed and these bolted connections would be ready for torque verifications on August 5 at 2000 hours. At around 2000 hours on August 5 (today) ZPMC QC Inspector Mr. Xu Jin Long informed this QA Inspector that ZPMC personnel have replaced the defective bolts and ZPMC workers are ready to use torque wrench serial number X02-666 which is adjusted to approximately 380 nM. to perform final tension verification of bolted

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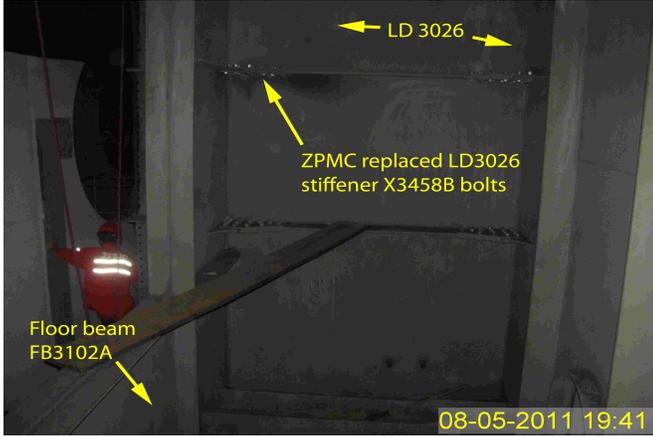
# WELDING INSPECTION REPORT

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connections of this same bolted connection. ZPMC QC informed this QA Inspector that RC Set No. DHGM220140 – M22x80 – required torque 380 nM. for tensioning from the nut end have been installed at this location. This QA Inspector observed the new bolts and all the other bolts on this splice connection have been tightened to 308 nM. Items observed appear to comply with project specifications.



## Summary of Conversations:

See Above.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

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**Inspected By:** Dawson,Paul

Quality Assurance Inspector

**Reviewed By:** Riley,Ken

QA Reviewer

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